REMARKS

The Office Action dated August 26, 2003 has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto. By this Amendment, claims 1, 3, 6 and 8 have been cancelled and The subject matter of claims 1 and 3 has been incorporated into newly added claim 12, and the subject matter of claims 6 and 8 has been incorporated into newly added claim 13. Claims 2, 4 and 5 have been amended to depend from newly added claim 12 and claims 7 and 9-11 have been amended to depend from newly added claim 13. Claims 4, 5 and 9 have been further amended to merely correct typographical errors. No new matter has been added or amendments made that narrow the scope of any elements of any claims. Accordingly, claims 2, 4, 5, 7 and 9-13 are pending in this application and are submitted for consideration.

Claims 1-2, 4-7 and 9-11 were rejected under 35 U.S.C. § 102(e) as being anticipated by Suzuoki (U.S. Patent No. 6,441,819). In making this rejection, the Office Action took the position that Suzuoki discloses all the elements of the claimed invention. As discussed above, claims 1 and 6 have been cancelled, rendering them moot with regard to this rejection. Claims 2, 4 and 5 have been amended to depend from newly added claim 12 and claims 7 and 9-11 have been amended to depend from newly added claim 13. Therefore the rejection is also moot with respect to these claims.

However, newly added claim 12 recites a method of displaying a vector-mode image in which a plurality of points designated on a screen are linked to display the required image. The method includes: classifying vector data, indicating a plurality of points for displaying the image, into a group of data indicating indispensable points

required for recognizing the image, and a group of data indicating supplementary points for supplementing the indispensable points to display a more precise image, for storage on a storage member; and selecting between displaying the image represented only by the data group indicating the indispensable points and displaying the image represented by the data group indicating the indispensable points plus the data group indicating the supplementary points, when the image is displayed. The image is represented only by the data group indicating the indispensable points when being scrolled on a screen.

Newly added claim 13 recites a system of displaying an image in which a plurality of points designated on a screen are linked to display the required vector image. The system includes a data storage member for classifying vector data, indicating a plurality of points for representing the image, into a data group indicating indispensable points required for a minimum recognition of the image, and a data group indicating supplementary points for supplementing the indispensable points to represent the more precise image. The data storage member also stores the vector data. An image quality selection member is provided for selecting between reading merely the data group indicating the indispensable points from the data storage member for displaying the image and reading the data group indicating the indispensable points plus the data group indicating the supplementary points from the data storage member for displaying the image. The image quality selection member selects the image display represented only by the data group indicating the indispensable points when the image is scrolled on a screen.

A feature of the present invention is that display points are reduced and only a minimum outline of an image is displayed when scrolling a screen. According to this

feature, in the scrolling of the image on the screen which needs a fast display, the vector image is represented only by the data group indicating the indispensable points. This results in the benefit of satisfactory image display adapted to the scrolling on the screen.

In contrast, Suzuoki only discloses of assembling an image of three dimensions from a datum point. As shown in Fig. 6, packet engine 91 stores data which designates a program for processing a polygon into an instruction RAM 93 and stores other data (coordinate data of the apexes of the polygon) into a source data RAM 94. Sub-CPU 95 divides the polygon into a number of polygons (sub-polygons) corresponding to the position (Z value) of the polygon in the depthwise direction in the three-dimensional space. Sub-CPU produces sub-polygons along a reference curved surface represented by curved surface parameters included in a packet supplied from the packet engine and produces a curved surface composed of a plurality of sub-polygons. Sub-CPU 95 stores coordinate values of the apexes of a plurality of polygons into a designation RAM 97 to be supplied to the graphical processing unit 49.

The graphical processing unit 49 reads out data of the three-dimensional coordinate values of the polygons after division from the designation RAM 97. The graphical processing unit 49 converts the three-dimensional coordinate values into two-dimensional coordinate values for the predetermined display section, produces pixel data corresponding to the polygons from the data, writes the pixel data into a frame buffer 58 and effects rendering processing.

As shown in Figs. 8A and 8B, the sub-CPU first divides the quadrangle ABCD into triangles ABC and ACD and calculates the area A of triangle ABC. If area A is

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larger than the reference value D, a middle point E is produced as shown in Fig. 9A to produce sub-polygons ABE and BCE. The display area of triangle ACD is then calculated. If it is determined that display area A is larger than the reference value D, then the midpoint E is calculated as shown in Fig. 9B to produce sub-polygons ECD and AED. If the sub-polygons are divided further, the sub-polygons approach a curved spherical surface as shown in Figs. 11A-11D, depending upon the number of apexes.

As shown in Fig. 13, the polygon is divided in accordance with the Z value by packet engine 48. As illustrated in Figs. 14A and 14B, depending upon the Z value, the shape of an object is varied in accordance with the display size when it is displayed on the predetermined display section.

Therefore, it is respectfully submitted that Suzuoki fails to disclose all the elements of the claimed invention, as recited in claims 12 and 13.

As claims 2, 4 and 5 depend from new claim 12, and claims 7 and 9-11 depend from new claim 13, Applicant respectfully submits that each of these claims incorporate the patentable aspects thereof, and are therefore allowable for at least the same reasons as discussed above.
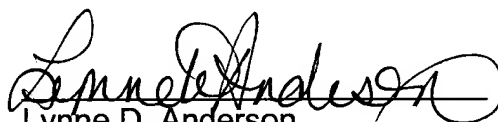
Claims 3 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuoki as applied to claim 1 above, and further in view of Goto et al. (U.S. Patent No. 5,434,591, "Goto"). However, as discussed above, claims 3 and 8 have been cancelled and the subject matter incorporated into newly claims 12 and 13, thus rendering this rejection moot. Furthermore, Goto merely discloses changing a scale of a screen, when the screen is scrolled. Therefore, Goto fails to disclose or suggest the claimed invention and also fails to rectify the deficiencies of Suzuoki.

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejections, allowance of claims 2, 4, 5, 7 and 9-13, and the prompt issuance of a Notice of Allowability are respectfully solicited.

If this application is not in condition for allowance, the Examiner is requested to contact the undersigned at the telephone listed below.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 107156-00080.**

Respectfully submitted,
ARENT FOX KINTNER PLOTKIN & KAHN PLLC

Lynne D. Anderson
Attorney for Applicants
Registration No. 46,412

Enclosures: Petition for Extension of Time

1050 Connecticut Avenue, NW, Suite 400
Washington, DC 20036-5339
Telephone: (202) 857-6000

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